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ABSTRACT

Historical data on enrollments in grades one through twelve and high school graduates in the four-county service area of the Gulf Coast Junior College District were collected for 1973 to 1978 and enrollments were projected for the years 1979 to 1989. Once grade and graduation figures were verified for accuracy, a Cohort Survival Method was used to determine the survival rate from one grade to the next. Three survival rates were computed, yielding three-, four-, and five-year averages for each of the four counties (George, Harrison, Jackson, and Stone). For the total four-county district, high school graduates numbered 4,037 in 1977. Peak enrollment of 4,235 is expected in 1978 and graduates are expected to decline to 3,602 by 1989, a decrease of 12%. The two larger counties, Harrison and Jackson, are anticipated to show declines of 13% and 10%, respectively, between 1979 and 1989, and Stone County to show only a very slight increase. George County graduates, however, are expected to increase by 30% between 1978 and 1989. Industrial expansion, increased highway construction, and high per capita earnings contribute to the expected growth in this county. Total population for the district is expected to increase from 272,977 in 1973-74 to 418,300 projected for 1995. (DR)

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MISSISSIPPI
GULF COAST JUNIOR COLLEGE
CENTRAL OFFICE

Title: HIGH SCHOOL GRADUATES - HISTORY AND PROJECTIONS, 1973-1989

Institutional Research Report No. 78/79-8

JANUARY 23, 1979

1. PROBLEM. As part of the Institutional Research input into the long range plan to be developed by ACE, it was decided that the college would develop long range enrollments and present them to the consultants for review, change, and selection of proper numbers on which to base the long range plans to be developed. This report deals with high school graduates; historically from 1973 through 1978; and projections from 1979 through 1989-90.

2. DISCUSSION. A considerable amount of computation has gone into development of the graduates shown at Table 1.

a. Historical data on grades 1-12 for public schools in the District came from an annual report, Public School Enrollment-End of First Month, for the historical years.

b. Historical data on graduates came from special yearly reports requested by the Institutional Research Office from each school in the district. Requested are the number of graduates at the end of the Spring and Summer terms; (accordingly, there are several years when the number of graduates exceeds the number of 12th graders; this being caused also by some students carrying a heavy load in their last year.) In these same reports, private schools in the district are requested to provide their grade enrollments and graduates.

c. The first step in the computations was to insure that all of the grades and graduates for the historical years were complete and accurate.

3. A great amount is being written about declining enrollments in schools and about the declining birth rates throughout the nation. Note is taken of this phenomenon, and some evidence is seen in the county compilations discussed later. But, the decline appears to be substantially less in the district than national figures would indicate; whereas the number of live births may be declining, the total population is increasing in the district. For example, population estimates furnished by the Coast Office of the MS Research and Development Center show a district population of 272,977 in 1973-74 increasing to 418,300 in 1995; an increase of 145,323 or 53.2% in this 22 year time period. This increasing population influences computations and projectionsin this and in the study on enrollments that will follow this report. Comments to explain why the population is projected to increase are provided in the county presentations.

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4. Once the grade and graduate historical data were determined to be accurate and complete, these data were arrayed as shown on the county tables to follow; the Cohort Survival Method was used to identify the survival from one grade to another; and three survival rates were computed - a three year, a four year, and a five year average for each county. A summary of these was taken to the Coast Office of the R & D Center for consultation as to which appeared to be the most logical for use in the study and to document reasons for the selection. All tables computed are attached to this study, whether recommended to be used or not. Should the consultants decide to use a year average computation other than that used by the author, it will be available for them.

5. George County. Table 3 shows the history and projections for grades 1-12 and graduates for the period 1973-74 through 1988-89. A five year survival average was used for this county. It appears that the leadership of George County has the "WELCOME" sign out. There is a 100-acre industrial park under way; Highway 63 is being four-laned from North to South; and this and the proximity to Jackson County will help the spill over from Jackson County growth to increase their population substantially in the program years. Per capita earnings of approximately $8,000 in Lucedale is among the highest five in the state. Peak year is 1989 with 303 graduates; low year is 1981 with 198.

6. Harrison County. Table 4 shows history and projections for Harrison County, using a four year average survival rate. Harrison County also is growing; with population increasing from 157,813 in 1973-74 to a projected 224,500 in 1995. Major indicators of this growth are: new railroad bridge between Biloxi and Ocean Springs that will open up the Harrison County Industrial Park; PACECO has announced a $6 million expansion, with 350 new jobs; C.E. NATCO has a $3 million expansion with 150-200 jobs; Morrison's will add 150 jobs; consideration is being given to the fact that Gulfport and Biloxi Ports are 20-30 miles closer to the oil rigs than New Orleans and other Louisiana Ports - this could bring considerable growth to these ports; the heavy crane installed at the Port of Gulfport will enable the port to handle Sea Train cargo, increasing the capacity substantially; the new storage bin for DuPont required raw materials will bring steady scheduled shipping to the port; the channel is being dredged to 38-40 feet and is being widened; and DuPont opening will spill over into the benefit of Harrison County. Despite all of these good features, Harrison County is projected to peak out in 1979 with 2201 graduates and the low year will be 1985-86 with 1,642 graduates.

7. Jackson County posed the greatest problem in this study. How to deal with the Ingalls layoffs was the problem. In past studies, Jackson County showed the greatest growth rate of any county in the district. But how to handle the Ingalls employment decline from 24,095 to 10,000-12,000 employees by 1980 was a real thought provoker. Because of the importance of this single action by the largest employer in the county and district, our explanation is contained in this text. Appreciation is given to Ingalls for information provided by them.

a. The work force at Ingalls is as follows. 60% come from Jackson

County; 10% from Harrison County; 4% from George County; and the remainder from out of the district. Accordingly, the following figures show the total work force, by year, and the number from counties in the district.

INGALLS WORK FORCE, 1973 FORWARD BY COUNTY OF ORIGIN

Year	Total Work Force		60% J.C.	10% Harco.	4% Geo. Co.
1973	18,813		11,287	1,881	752
1974	19,406		11,643	1,940	776
1975	24,136		14,481	2,413	965
1976	24,619		14,771	2,461	984
1977	24,095		14,457	2,409	963
1978	19,500		11,700	1,950	780
1979	16,500	(-1800)	9,900	1,650	660
1980 Forward	12,000	(-2700)	7,200	1,200	480

It must be noted that Ingalls projects from 10-12,000 employees from 1980 forward. Taking an optimistic look, the author has selected the bottom figure as 12,000. Several significant conclusions can be drawn from the above:

First, the drop from 1976 with 24,619 employees to 12,000 in 1980 is startling; a reduction of 12,619 employees or 51.3%. A reduction of 12-14,000 employees was widely publicized with forebodings of doom for Jackson County.

Second, the Jackson County portion of this was 14,771 Ingalls Employees in 1976 dropping to 7,200 in 1980; a reduction of 7,571 or 51.3%. The real impact in Jackson County was a reduction between these years of 7,571, not 12-14,000 mentioned above.

Third, by 1978, 2,757 employees had been laid off. An impact of this, and the declining birth rate, mentioned above, is found on Table 5, where 26,632 total students are reported in grades K1-12 in 1977-78 and 25,836 in 1978 Fall Semester; a reduction of 796 students, or a 2.9% reduction in school population. Reductions are shown in all but the first and 12th grades. And this is historical fact.

Fourth, to come is a further reduction of 3,500 workers.

The question is: What is the impact of this further reduction on the total work force in Jackson County? The following data may give some impact, numbers-wise, on the Jackson County work force. Shown are the years 1976 through 1982, the population from Table 1, the percentage of the total reported by the R & D Center for Jackson County in 1978 as being employed; the actual number of employed persons reported by the R&D Center for 1978, the number of layoffs and an adjusted estimated work force.

JACKSON COUNTY - ESTIMATED LAYOFF EFFECT

Year	Population	Percent Workforce	= Employed Workforce	-Ingalls Layoffs	= Estimated Workforce
1976	103,163		45,804		
1977	106,500		47,286		
1978	109,837	44.4%*	48,800		
1979	113,170		50,274	-1,800	48,474
1980	116,511		51,730	-2,700	49,030
1981	119,848		53,212	-2,700	50,512
1982	123,185		54,694	-2,700	51,994.

*Actual percent of employed in 1978 to projected population - MS Labor Supply Data - Jackson County R&D Center.

The employed work force for 1978 was actual. The percentage of that number to the total population was 44.4%. The remaining numbers in the "Employed Work Force" column were arrived at by multiplying the actual percentage (44.4%) for 1978 against the population for the years indicated. The remaining portion of the Ingalls reduction is then subtracted giving the adjusted work force. NOTE: There is a slight dip in 1979 and by 1980 the total work force is higher than it was in 1978.

The purpose of this presentation is not to imply that the economic effect of the layoffs will result in "only a slight dip" in Jackson County. To those who have been and/or will be laid off, the results are great. But, when looked at in the context of the total work force in the county, they are minimal. As for high school graduates, it will be five years before the number graduating drops back to the number graduating in 1978.

b. Jackson County will continue to grow. Table 5 shows history and projections for Jackson County, using a four year survival rate. Population will increase from 93,152 in 1973 to 162,900 in 1995. Major indicators of this are the recent Department of Defense commitment to stabilize the county as a result of the Ingalls layoffs. People who want to stay in Jackson County can stay with federal help in four major areas: Business Assistance, Industrial Site Acquisition and Development, Unemployment Compensation, and Mortgage Payment Assistance, and in port development and expansion. Examples of federal assistance are: financial assistance for the pipeline, the airport, the new 50-acre Equestrian Center. Major indicators of growth are the Tenneco option on land, the Diamond Shamrock option on land and the new mall going in adjacent to the campus. Jackson County's growth potential is unlimited and it is expected to blossom.

8. Stone County. Table 6 shows history and projections for Stone County, which is projected to grow from 8,773 in 1973 to 12,150 in 1995. This may be the "sleeper" of the four counties. As grows Harrison County, so, too, grows Stone. The Southern part of the county, in the Saucier area, might very well become the northernmost portion of the Biloxi-Gulfport Bedroom community in the years to come. A four year average survival rate is used to project graduates for this county. Peak year is anticipated to be 1981

graduates, with 1979 projected to graduate 117; and 115 in 1984-85.

9. The following tables and charts were developed in arriving at the above recommendations as to graduates within the four county district. They are provided for review by the consultants to see what the impact would have been were the above-recommended projections not chosen.

County	County Summary	3-yr. Avg. Projection	4-yr. Avg. Projection	5-yr. Avg. Projection
George	7	8	9	
Harrison	10	11		12
Jackson	13	14		15
Stone	16	17		18.

The next study will take these recommended graduate totals and use them for college index development and projections of college students.

10. Much appreciation is given to Mr. Chic Anderson, Director, Coast Office, MS R & D Center, for his valuable analysis of computations and his comments on district growth.

11. Directors of Student Services and Recruitment-Placement Counselors may be interested in the information in this report.

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